Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

THE EVOLUTION OF LAMPS.

By Edward C. Weaver.

ONE of the interesting collections of the National Museum at Washington is of lamps. Mr. Walter Gough, the assistant curator of the department of ethnology, has spent a great deal of time and study in so arranging the old and new specimens that they present an intelligible thread of development. In the east hall, among numerous tableaux showing the rise of civilization, this new collection occupies several cases on the main aisle. Although years have passed since the specimens have been coming in from all parts of the earth, it has not been till a recent reorganization that the series of many torches, lanterns and lamps have been arranged with any idea of their co-relation.

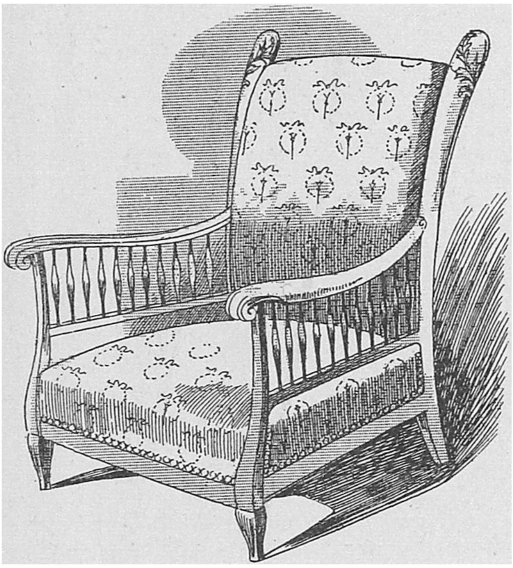


Fig. 6. Chair after the Morris Ideal.

In the long period of development that has led up to our present systems of illumination America is found at both ends of the string. While the arc light is probably the finest type of light-producers upon a large scale, it is also true that a torch carried by an Indian represents the earliest effort of aboriginal man to fathom the depths of darkness before him, and to save his toes contact with the rocking-chair. These torches were fat pine twigs twisted together and fired by sparks created by the frictional rubbing of bark or sticks. There is no doubt that this same savage, while watching a fat 'possum or other toothsome morsel simmering and stewing before an open fire, noticed that the fierce heat boiled out the odorous fat, which, dropping upon the wood of the fire, made it burn brighter and brisker. This was the first candle—a piece of wood with fat around it, which later, in the far north, became a fish or bird with a torch sticking through it.

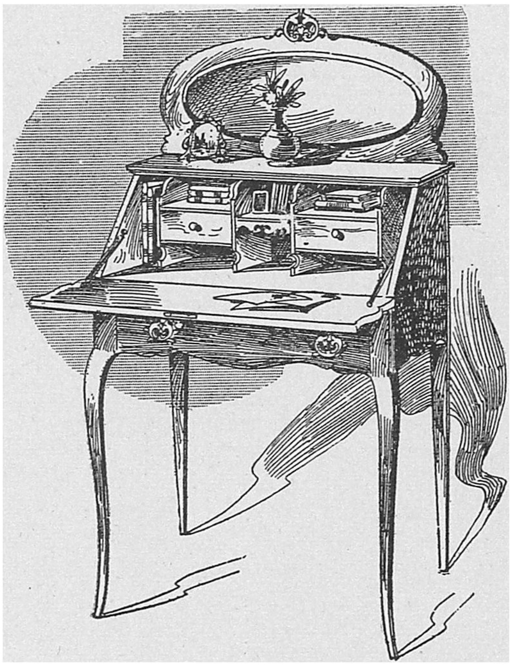


Fig. 7. Colonial Writing-Desk.

In the South Sea Islands the natives string oily nuts upon a splinter, which is kept burning through their religious services, and the Malays improve upon this by using bundles of resin wrapped in palm leaves, while the early English and Scandinavians used rushes dipped in melted fat. They afterwards wrapped cloth fibre in rolls of wax and thus invented the candle of our time. The first use of a candle in

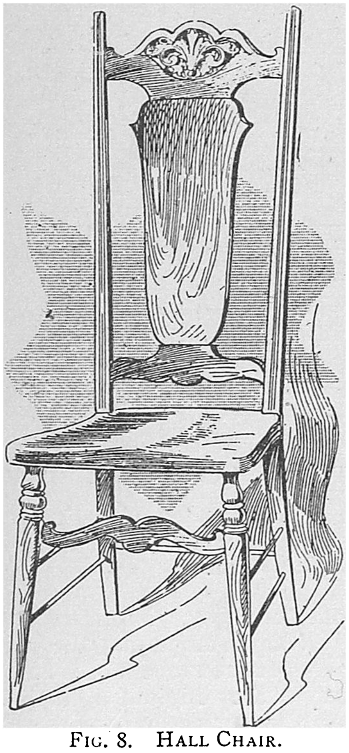


Fig. 8. Hall Chair.

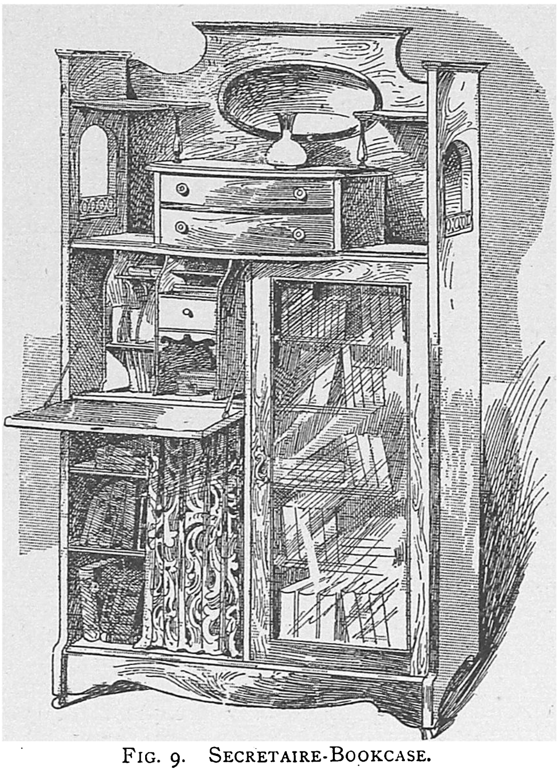


Fig. 9. Secretaire-Bookcase.

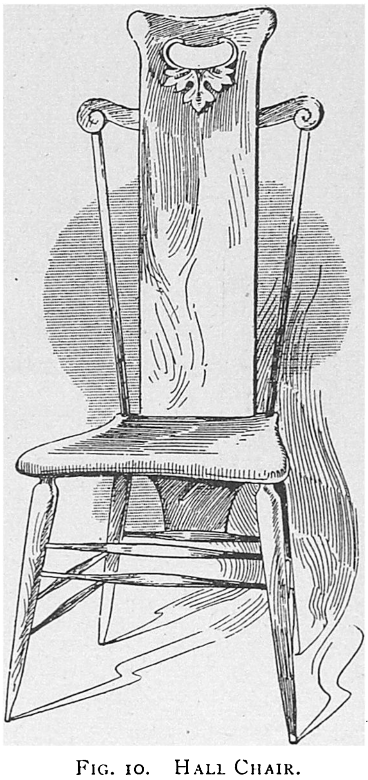


Fig. 10. Hall Chair.

China and Japan is, however, so long ago that there is no record of it, being lost in the past of a nation that has a history of fifty centuries. In the most of countries, however, the use of candles begins about the same date that animals are domesticated and the honey-bee is introduced.

With the lamp, as well as the candle, the earliest forms are to be found among the aborigines of our own country. The Esquimaux find a stone upon the beach with a natural depression in it, which they fill with seal fat and use a sort of moss as a wick. This is repeated by the early people of many other countries, the next step toward the improvement of the oil vessel being an irregular clay saucer. In America turnips hollowed out have been used for this purpose, while among the Dutch people of Pennsylvania there are to be found to-day pans with tallow wicks. The genealogy of the lamp may now be traced through a long line of Roman specimens, beginning with rough clay bowls filled with oil, from the sides of which depended the wicks. Then, one day, the potter in his work pinched a sort of lip upon one side of the saucer and discovered that it made an elegant place for the wick to rest, and later another lip was found a very useful appendage for the purpose of handling the lamp. Finally this develops into the classic lamp with an orificed spout and ornately-curled handle—lamps that have lit the studies of Cicero and heated the curling-irons of Cleopatra.

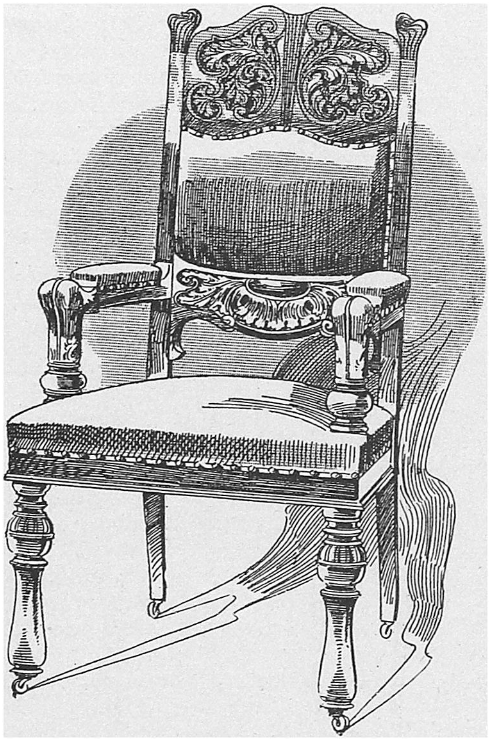


FIG. 11. ROMANESQUE CHAIR.

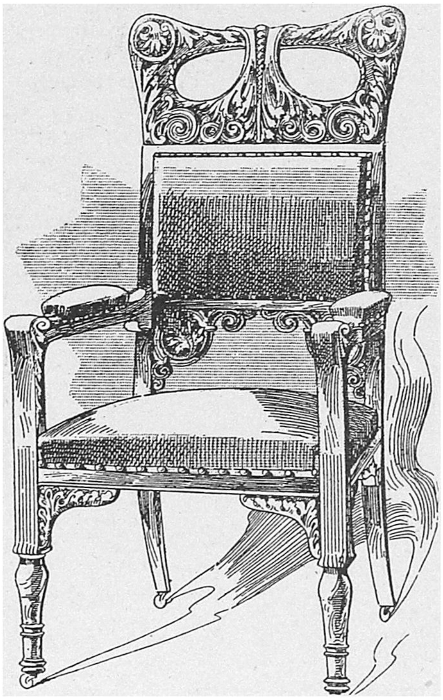


FIG. 13. ROMANESQUE CHAIR.

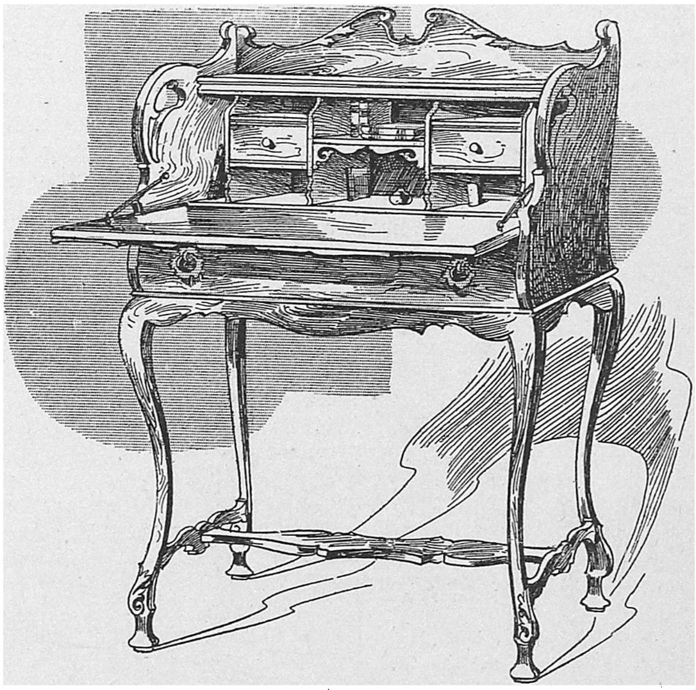


FIG. 12. WRITING-DESK ON FRENCH LINES.

The Italians continued in the line of improvement, molding similar forms in iron and then into bronze—the metal of the artist—and the designs became objects to strive for, and some of the specimens are in the fullest artistic sense ornamental. The feature of the collection is several beautiful lamps from the old Pompeiian city—lamps that tell a tale of wealth and luxury and typify that delightful people whose entire time and talent was expended to enjoy. From tripods swung these artistic lamps, filled with perfumed oils, the precursor of the banquet lamp. Other specimens are those found in the catacombs, and tell the story of the religious light that was kept secretly burning below the surface of the earth —the life of denial and ideality.

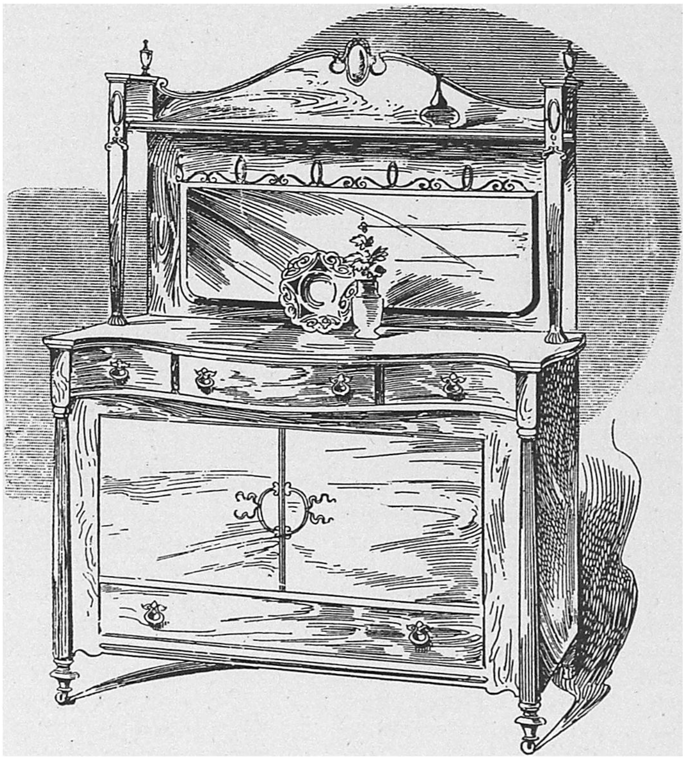
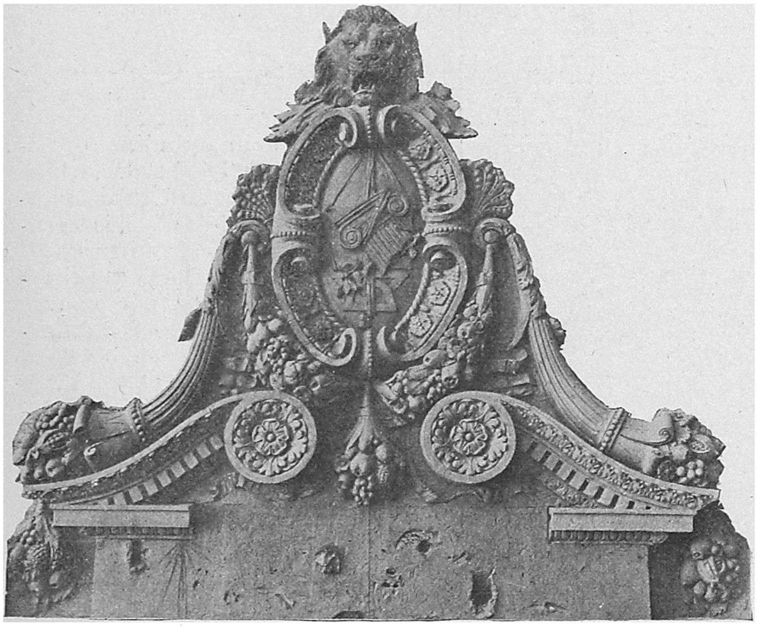


FIG. 14. COLONIAL SIDEBOARD.

As the means for protecting the light from the fitful effect of the wind the next step of the lamp is the lantern. One of the specimens comprises a gourd filled with small holes. This was filled with fire-flies and used upon board vessels for the purpose of lighting the compass. Another fire-fly lamp of a later date comes from the West Indies. It is about eighteen inches high and is constructed with three stories, each like a cage, with vertical bamboo slats, and provided with small doors. The fire-flies, which in the tropics are very large and brilliant, are imprisoned in these cages and fed from day to day, retaining their lighting power for a long time. There is also shown an old English lanthorn, such as was used by the town watchman in the olden times, and which might have well shown out the portly form of old Jack Falstaff. It is a huge black cylinder with a conical top, in which is inserted a large ring. The light shines through horn, a material said to have been utilized by good King Alfred. This was the king who measured the time spent in his prayers by the burning of his candle. As the unprotected candle burns very uncertainly, the good king, not wishing to pray over time, invented the horn plates.



Decoration in Terra Cotta. By the Perth Amboy Terra Cotta Co.

Japanese lamps, like their candles, have changed very little since almost prehistoric times. They take to colors, and the more color their paper lanterns show the merrier is the time. Their gifu hangs outside the house, and is provided with a bell that rings as the wind sways it back and forth. In some of their larger and more elaborate lanterns the oil saucer is used instead of the candle.

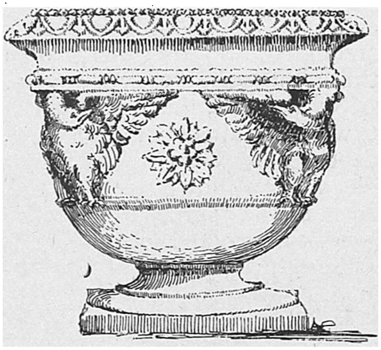
Among the specimens there are some that are in every sense of the word curios. A lamp used in Spain by snail-hunters is one of these, as well as the two little lamps used by the cavaliers of Seville to hang to the ends of their stiffly-waxed mustachios. A brick with a hole for fat and a wick comes from among the bakers of Oxford, England, where it is very commonly used. A Sticking Tommy, a socket with sticking prongs, completes the catalogue of nondescripts.

A subdivision shows devices for the measuring of time by candles or lamps. The Pacific Islander calculates the time of night by the number of nuts burned from his string. In China certain ceremonials are timed by the stated burning of a joss stick. The same is used by the Chinese doctor to time the taking of medicines, he carefully bending the joss stick into certain lengths. Messengers or others who desire to awake in a comparatively short time light a joss stick and place it between their toes. The burning awakens them promptly when the fire reaches the critical point.

Even to-day the palace clock of the Chinese emperor is given time in the night by means of the burning of the wick in a huge oil lantern. Probably the last of these devices, that is, the latest in time of conception, is the ordinary candle marked boldly upon its surface the number of the hour that it has burned since lighting.

AMERICAN DECORATIVE SCULPTURE—III.

ILLUSTRATED WITH EXAMPLES OF WORK EXECUTED BY THE PERTH AMBOY TERRA COTTA COMPANY.



Vase in Terra Cotta.

In our September and October issues we described and illustrated the productions in terra cotta made by the Perth Amboy Terra Cotta Company, of Staten Island and New York. By an oversight on our part, the work was ascribed to the "American Terra Cotta Company," an institution which has no existence, instead of the Perth Amboy Terra Cotta Company, which is the correct designation of the firm whose products we are at present describing.

Terra cotta as a building material is essentially a product of the age: though its use primarily was the outcome of certain requisite conditions encountered in the erection of office buildings, it quickly developed from mere utility and, no longer confined to the structure of floor arches and the enclosing of beams, appears in the fronts of buildings with its inherent beauties well developed, challenging attention as much for its esthetic qualities as well as for those more solid merits which make it one of the most valuable of building materials.

Decoration in Terra Cotta. By the Perth Amboy Terra Cotta Co.

Terra cotta was at first introduced as an imitation stone, and still possesses great structural utility, being used in string-courses, sills, copings, panels, or as the entire walling, and is thus a substitute for the heavy masses of brickwork and stone. Its great adaptability to every form and position, and its great responsiveness to artistic thought in surface decoration, suggested its use for decorative as well as structural purposes. Its richness of color, and its great capability for magnificence of effect, render it the ideal of convenience and luxury in modern architecture. The result is, that architectural problems which have hitherto been solved by means of stone, or brick, or wood, are now both structurally and artistically composed of terra cotta. This material occupies a medium position in point of weight, manufactured size and color, between stone and brick, and,